



# **NOAA In Your State**



"NOAA's science based work touches 300 million Americans daily, protecting lives and livelihoods. NOAA's products and services are the result of the hard work of our dedicated staff and partner organizations located in program and research offices throughout the globe. The following is a summary of NOAA programs based in, and focused on, your state or territory. The entries are listed by statewide, region, and then by congressional districts and cities or towns."

Dr. Kathryn Sullivan

Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator

## MD

# Statewide

National Marine Fisheries Service (NMFS) - <u>Greater Atlantic Regional Fisheries Office</u> and <u>Northeast Fisheries</u> Science Center

NMFS is responsible for the management, conservation and protection of living marine resources within the United States' Exclusive Economic Zone (water three to 200 mile offshore). Using the tools provided by the *Magnuson-Stevens Act*, NMFS assesses and predicts the status of fish stocks, develops and ensures compliance with fisheries regulations, restores and protects habitat and works to reduce wasteful fishing practices, and promotes sustainable fisheries. Under the *Marine Mammal Protection Act* and the *Endangered Species Act*, NMFS recovers protected marine species (e.g. whales, turtles).

The Greater Atlantic Regional Fisheries Office (located in Gloucester, MA) includes divisions that promote sustainable fisheries, habitat conservation, and recovery of protected species, and conducts statistical analysis and programs supporting these divisions. Key fish species managed in the Greater Atlantic Region include the northeast "multispecies complex" (cod, haddock, yellowtail flounder etc.), Atlantic sea scallops, herring, lobster, and summer flounder. Key marine endangered species in this region are northern right whales, Kemp's ridley sea turtles, Atlantic salmon and Atlantic and shortnose sturgeon. NMFS is the lead agency coordinating the Large Whale and Sea Turtle Disentanglement Program activities and the Marine Mammal Health and Stranding Response Program activities. The core functions of these programs include coordinating volunteer networks to: respond to entanglements and strandings, investigate mortality events, and conduct biomonitoring, tissue/serum banking, and analytical quality assurance.

The Northeast Science Center (headquartered in Woods Hole, MA) focuses on collection, analysis, and presentation of scientific information about the Northeast Shelf ecosystem, its condition, and its marine life. In addition to its five laboratories, the Center uses four research vessels to support its work. They are: the NOAA ships *Henry B. Bigelow*, and the small research vessels *Gloria Michelle*, *Victor Loosanoff*, and *Nauvoo*. The Greater Atlantic Fisheries Regional Office and the Science Center are responsible for the District of Columbia and the following states: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, and North Carolina; and the inland states of Vermont, Minnesota, Michigan, Wisconsin, Illinois, Indiana, Ohio, and West Virginia.

## National Marine Fisheries Service (NMFS) - Chesapeake Bay-Watershed Education and Training Program

The NOAA Bay-Watershed Education and Training (B-WET) Program is an environmental education program that promotes locally relevant, experiential learning in the K-12 environment. The primary delivery of B-WET is through competitive funding that promotes Meaningful Watershed Educational Experiences (MWEEs). B-WET currently serves seven areas of the country: California, Chesapeake Bay, Great Lakes, Gulf of Mexico, Hawai'i, New England, and the Pacific Northwest. The Chesapeake B-WET Program recognizes that knowledge and commitment built from firsthand experience, especially in the context of one's community and culture, is essential for achieving environmental stewardship. Chesapeake B-WET responds to regional education and environmental priorities through local implementation of competitive grant funds. Please see regional funding opportunity for priorities and eligibility details.

## National Ocean Service (NOS) - Coastal Management Fellowship

The NOAA Coastal Management Fellowship matches postgraduate students with state and territory coastal zone programs to work on two-year projects proposed by the state or territory. The Maryland Chesapeake Coastal Program is hosting a fellow who will integrate water quality and coastal resources into marine spatial planning efforts in the Chesapeake and Atlantic Coastal Bays.

### National Weather Service (NWS) - Automated Surface Observing Systems Stations

The Automated Surface Observing Systems (ASOS) program is a joint effort of the National Weather Service (NWS), the Federal Aviation Administration (FAA), and the Department of Defense (DOD). ASOS serves as the Nation's primary surface weather observing network. ASOS is designed to support weather forecast activities and aviation operations and, at the same time, support the needs of the meteorological, hydrological, and climatological research communities. ASOS works non-stop, updating observations every minute, 24 hours a day, every day of the year observing basic weather elements, such as cloud cover, precipitation, wind, sea level pressure, and conditions, such as rain, snow, freezing rain, thunderstorms, and fog. There are 10 ASOS stations in Maryland.

## National Weather Service (NWS) - Cooperative Observer Program Sites

The National Weather Service (NWS) Cooperative Observer Program (COOP) is truly the Nation's weather and climate observing network of, by and for the people. More than 10,000 volunteers take observations on farms, in urban and suburban areas, National Parks, seashores, and mountaintops. The data are representative of where people live, work and play. The COOP was formally created in 1890 under the NWS Organic Act to provide observational meteorological data, usually consisting of daily maximum and minimum temperatures, snowfall, and 24-hour precipitation totals, required to define the climate of the United States and to help measure long-term climate changes, and to provide observational meteorological data in near real-time to support forecast, warning and other public service programs of the NWS. The data are also used by other federal (including the Department of Homeland Security), state and local entities, as well as private companies (such as the energy and insurance industries). In some cases, the data are used to make billions of dollars' worth of decisions. For example, the energy sector uses COOP data to calculate the Heating and Cooling Degree Days which are used to determine individuals' energy bills monthly. There are 35 COOP sites in Maryland.

## National Weather Service (NWS) - NOAA Weather Radio All Hazards Transmitters

NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service (NWS) forecast office. NWR broadcasts official NWS warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week. Working with the Federal Communication Commission's (FCC) Emergency Alert System, NWR is an "All Hazards" radio network, making it the single source for comprehensive weather and emergency information. In conjunction with federal, state, and local emergency managers and other public officials, NWR also broadcasts warning and post-event information for all types of hazards – including natural (such as earthquakes or avalanches), environmental (such as chemical releases or oil spills), and public safety (such as AMBER alerts or 911 Telephone outages). Known as the "Voice of NOAA's National Weather Service," NWR is provided as a public service by the NWS. NWR includes 1,100 transmitters covering all 50 states, adjacent coastal waters, Puerto Rico, the U.S. Virgin Islands, and the U.S. Pacific Territories. There are four NWR transmitters in Maryland.

# Office of Oceanic and Atmospheric Research (OAR) - Sea Grant College Program

NOAA's National Sea Grant College Program is a federal-university partnership that integrates research, education, and outreach (extension and communications). Sea Grant forms a network of 33 programs in all U.S. coastal and Great Lakes states, Puerto Rico, and Guam. Headquartered adjacent to the University of Maryland's College Park campus, Maryland Sea Grant supports a statewide program of research, education, and extension services that promote the wise use of our coastal and marine resources with a strong ethic of stewardship. We work closely with our stakeholders to improve understanding of coastal ecosystem health and economics and to help inform decision makers and the public. Our research program focuses on critical issues facing the Chesapeake and coastal bays including water quality, nutrient dynamics, harmful algal blooms, and aquatic invasive species. The research we fund also addresses the challenges of restoring submerged aquatic vegetation and degraded streams and improving ecosystem based fisheries management. Through active communications and extension efforts, Maryland Sea Grant informs industry, policy makers, and the public on many issues including aquaculture; commercial and recreational fishing; natural resources conservation and biodiversity; and seafood processing and marketing. We actively support environmental literacy and education by funding graduate and undergraduate research fellows and through ongoing collaborations with public high schools and middle schools. We promote efforts to improve Maryland's coastal resiliency through better understanding of the effects of coastal flooding, sea level rise, and climate change on threatened communities and ecosystems. We produce communications materials for a variety of audiences including award-winning videos; a magazine, Chesapeake Quarterly; web-based information; and educational activities. Our advisory council of coastal community leaders provides guidance for our program's activities and strategic goals, which align with those of NOAA.

#### Coastal

# National Marine Fisheries Service (NMFS) - <u>Deep-Sea Coral Research and Technology Program</u>

The Deep Sea Coral Research and Technology Program—called for in the reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act—is currently conducting a three-year field research effort off the Northeastern U.S. The 2012-2015 field research will not only improve knowledge about deep-sea life off the northeastern seaboard, but will also inform the New England and Mid-Atlantic Fishery Management Councils in their efforts to manage commercial and recreational fisheries that depend on these and other important habitats.

## National Marine Fisheries Service (NMFS) - Restoration Center

The NOAA Restoration Center provides funding and technical guidance to restore coastal habitat in Maryland and nationwide. Our projects help recover threatened and endangered species, support sustainably managed species, and reverse the damage done by oil spills and toxic releases. In 2013-15 we provided funding for the removal of Bloede Dam and for engineering design to remove the Daniels Dam on Maryland's Patapsco River. These removals are part of a larger effort with partner American Rivers to restore more than 65 miles of spawning habitat for blueback herring, alewife, and

American shad, and more than 183 miles for American eel, ensuring sustainable populations of these target species. Two other dams on the Patapsco River (Simkins and Union Dams) were removed in 2010 as part of this effort.

# National Marine Fisheries Service (NMFS) - Species Recovery Program

Under the authority of section 6 of the Endangered Species Act, the Cooperation with States Program brings states, NMFS, and other partners together to recover threatened and endangered species. Competitive grants are awarded to states through the Species Recovery Grants to States Program to support management, monitoring, research and outreach efforts for species that spend all or a portion of their life cycle in state waters. The funded work is designed to prevent extinctions or reverse the decline of species, and restore ecosystems and their related socioeconomic benefits. Twenty-five coastal states, including Maryland, and U.S. territories, currently participate in this program. The Maryland Department of Marine Resources and the Virginia Department of Game and Inland Fisheries are in the final year of a 3-year \$445k grant to assess critical habitats for recovering the Chesapeake Bay Atlantic sturgeon Distinct Population Segment.

# National Marine Fisheries Service (NMFS) - Sea Turtle Salvage and Stranding Network

The Sea Turtle Stranding and Salvage Network (STSSN) was formally established in 1980 to collect information on and document strandings of marine turtles along the U.S. Gulf of Mexico and Atlantic coasts. The network, which includes federal, state and private partners, encompasses the coastal areas of the eighteen-state region from Maine to Texas, and includes portions of the U.S. Caribbean. Data gathered by the Network helps inform bycatch reduction efforts, track factors affecting turtle health, and provide other information needed for sea turtle management and population recovery.

# National Marine Fisheries Service (NMFS) - <u>National Marine Mammal Stranding Network</u> and <u>John H. Prescott</u> <u>Marine Mammal Rescue Assistance Grant Program</u>

The National Marine Mammal Stranding Network and its trained professionals respond to dead or live marine mammals in distress that are stranded, entangled, out of habitat or otherwise in peril. Our long-standing partnership with the Network provides valuable environmental intelligence, helping NOAA establish links among the health of marine mammals, coastal ecosystems, and coastal communities as well as develop effective conservation programs for marine mammal populations in the wild. There are two stranding network members in the state. NOAA Fisheries funds eligible members of the Stranding Network through the competitive John H. Prescott Marine Mammal Rescue Assistance Grant Program. Since 2001, \$48.2 million has been awarded to 552 grantees who raised over \$15.9 million in matching funds. In FY15, 34 grantees received \$2.7million nationwide, with one award going to one recipient in Maryland: Maryland Department of Natural Resources.

# National Ocean Service (NOS) - Navigation Manager

NOAA's navigation managers work directly with pilots, port authorities, and recreational boating organizations in Maryland. They help identify the navigational challenges facing marine transportation in Maryland and provide NOAA's resources and services that promote safe and efficient navigation. Navigation managers are on call to provide expertise and NOAA navigation response coordination in case of severe coastal weather events or other marine emergencies. The Office of Coast Survey has a navigation manager in Silver Spring, MD to support mariners and stakeholders in the Chesapeake and Delaware Bay region.

## National Ocean Service (NOS) - National Water Level Observation Network

The National Ocean Service (NOS) operates six long-term continuously operating tide stations in the state of Maryland, which provide data and information on tidal datum and relative sea level trends, and are capable of producing real-time data for storm surge warning. These stations are located at Ocean City Inlet, Cambridge, Bishops Head, Baltimore, Annapolis and Solomon's Island. Each station is associated with a set of tidal benchmarks installed in the ground that is used to reference the height of the water levels and helps connect the water level to land.

## National Ocean Service (NOS) - Coastal and Estuarine Land Conservation Program

The Coastal and Estuarine Land Conservation Program (CELCP) brings conservation partners together to protect coastal and estuarine lands considered important for their ecological, conservation, recreational, historical, or aesthetic values. To date CELCP has protected more than 100,000 acres of land nationally and awarded six grants in Maryland. The program provides state and local governments with matching funds to purchase significant coastal and estuarine lands, or conservation easements on these important lands that are threatened by development. Lands or conservation easements acquired with CELCP funds are protected in perpetuity so that they may be enjoyed by future generations. CELCP has created an interactive map highlighting information about completed projects in your state.

## National Ocean Service (NOS) - Coastal Management Program

Through a unique Federal-state partnership, NOAA's Office for Coastal Management (OCM) works with the Maryland Department of Natural Resources Chesapeake and Coastal Services Unit to implement the National Coastal Zone Management Program in Maryland. OCM provides the coastal management program with financial and technical assistance to further the goals of the Coastal Zone Management Act and ensure our coastal waters and lands are used in a balanced way to support jobs, reduce use conflicts, and sustain natural resources.

## National Ocean Service (NOS) - Atlantic Environmental Response Management Application

Assessing important spatial information and designing successful restoration projects rely upon interpreting and mapping geographic information, including the location, duration, and impacts from oil spills, other hazardous materials, or debris released into the environment. Atlantic ERMA® is an online mapping tool that integrates both static and real-time data, such as Environmental Sensitivity Index (ESI) maps, ship locations, weather, and ocean currents, in a centralized format for environmental responders and decision makers. In the fall of 2012, Atlantic ERMA was employed as the Common Operational Picture for the U.S. Coast Guard's pollution response to Hurricane Sandy in New York and New Jersey waters.

## National Ocean Service (NOS) - Marine Debris Projects and Partnerships

The NOAA Marine Debris Program (MDP) leads national and international efforts to research, prevent, and reduce the impacts of marine debris. The program supports marine debris removal, education and outreach, and research projects in partnership with state and local agencies, tribes, non-governmental organizations, academia, and industry. In Maryland, the Marine Debris Prevention through Education and Outreach Grant Program is funding two projects: preventing debris by conducting outreach to youth through the Trash Free Schools project, and a partnership with the National Aquarium in Baltimore to promote community-led land-based litter clean up and prevention near Baltimore's Inner Harbor. The MDP is also partnering with the Boat U.S. Foundation and other partners to remove two derelict nets offshore of Ocean City, MD.

#### National Ocean Service (NOS) - U.S. Integrated Ocean Observing System Program

U.S. Integrated Ocean Observing System (IOOS®) is envisioned to be an operational system and a network of regional partners responsible for regional observations, data management, modeling and analysis, education and outreach, and research and development. The overarching purpose of U.S. IOOS is to address regional and national needs for ocean data and information. The Mid-Atlantic Regional Association Coastal Ocean Observing System (MARACOOS) is one of eleven U.S. IOOS regional associations in the United States focused on ocean observing. Our region extends from Cape Hatteras to Cape Cod and includes all the estuaries and the continental shelf waters. Nearly 25 percent of the nation's population lives next to the MACOORA ocean region.

# National Weather Service (NWS) - Buoys

The National Weather Service (NWS), through its National Data Buoy Center (NDBC), develops, deploys, operates, and maintains the current national data buoy network of moored and drifting weather buoys and land stations that serve all of

the Nation's coastal states and territories. Within this network, 110 of the buoys and 51 of the land stations are maintained directly by NDBC. Located at NASA's Stennis Space Center in Mississippi, supports weather and marine warning and forecast services in real time by providing deep ocean and coastal meteorological and oceanographic observations. These data provide valuable information used by NWS supercomputers to produce computer-generated model forecasts of the atmosphere and climate. NDBC manages the Volunteer Observing Ship program to acquire additional meteorological and oceanographic observations supporting NWS mission requirements. NDBC also supports operational and research programs of NOAA and other national and international organizations.

# MD-1 Oxford

## National Ocean Service (NOS) - Cooperative Oxford Laboratory

The Cooperative Oxford Laboratory (COL), part of the National Centers for Coastal Ocean Science, is situated along the Tred Avon river, a tidal estuary of the Chesapeake Bay on Maryland's Eastern Shore. Initially established to prevent the spread of fish and shellfish diseases in the Chesapeake Bay, the mission now includes helping local decision makers understand contemporary pressures on our watershed, including urbanization, climate change, and pollution.

## **Princess Anne**

# NOAA Office of Education - Living Marine Resources Cooperative Science Center

The University of Maryland - Eastern Shore leads NOAA's Living Marine Resources Cooperative Science Center (LMRCSC) with its partners: Delaware State University, Hampton University, Savannah State University, the University of Maryland Center for Environmental Science Institute of Marine and Environmental Technology, Oregon State University, and the University of Miami Rosenstiel School of Marine and Atmospheric Sciences. This Center is part of NOAA's Educational Partnership Program with Minority Serving Institutions. LMRCSC conducts research in the marine sciences, with areas of specialization in fisheries science, oceanography, ecology, environmental sciences, and environmental molecular biology/biotechnology. LMRCSC develops a pool of highly educated and skilled students from underrepresented groups in the marine sciences. LMRCSC's primary collaborator is the National Marine Fisheries Service.

## **Berlin**

## National Marine Fisheries Service (NMFS) - Office of Law Enforcement

NOAA's Office of Law Enforcement is the only conservation enforcement program (Federal or State) that is exclusively dedicated to Federal fisheries and marine resource enforcement. Its mission is to protect global marine resources by enforcing domestic laws and international treaties and obligations dedicated to protecting wildlife and their natural habitat. Our special agents and enforcement officers ensure compliance with these laws and take enforcement action if there are violations. Additionally, the Cooperative Enforcement Program allows NOAA the ability to leverage the resources and assistance of 27 coast states and U.S. territorial marine conservation law enforcement agencies in direct support of the Federal enforcement mission. Effective fisheries law enforcement is critical to creating a level playing field for U.S. fishermen and enabling sustainable fisheries to support vibrant coastal communities. The Ocean City field office, located in Berlin, Md., is part of Office of Law Enforcement's Northeast Division.

## Cambridge

# Office of Oceanic and Atmospheric Research (OAR) - Cooperative Institute for the North Atlantic Region, University of Maryland

The Cooperative Institute for the North Atlantic Region (CINAR) was established at Woods Hole Oceanographic Institution (WHOI) in 2009. CINAR is a consortium of universities, led by WHOI, in partnership with Rutgers University, the University of Maryland Center for Environmental Science, University of Maine, and the Gulf of Maine Research Institute. The mission of CINAR is to conduct and coordinate cutting-edge research engaging both NOAA and academic scientists to enable informed decisions by NOAA for sustainable and beneficial management of northwestern Atlantic shelf ecosystem.

## Talbot, Queen Anne's, Dorchester, and Caroline Counties

National Marine Fisheries Service (NMFS), National Ocean Service (NOS) - Choptank Complex Habitat Focus Area NOAA's Chesapeake Bay Office, Restoration Center, Greater Atlantic Regional Fisheries Office, National Centers for Coastal and Ocean Science and Office of National Marine Sanctuaries are coordinating NOAA and partner programs within the Choptank River Complex Habitat Focus Area. Habitat Focus Areas are a non-regulatory, collaborative approach to habitat conservation that NOAA launched in 2013 to increase the effectiveness of NOAA's habitat conservation science and management efforts. Habitat Focus Areas are places where NOAA offices, working together with public and private sector partners, can achieve measurable habitat conservation results in three to five years. The Choptank River is home to the largest native oyster restoration effort in the United States and contains among the most important habitat for striped bass populations. As such, the river's health is vital to ensuring sustainable fisheries and coastal economies. NOAA conducts mapping and acoustic surveys in tributaries of the Choptank River and Little Choptank River to support native oyster restoration, funds in-the-water oyster restoration, and supports research to understand ecosystem conditions, evaluate threats, and quantify the ecosystem services provided by the restored oyster reefs.

# MD-3 Annapolis

## National Marine Fisheries Service (NMFS) - Annapolis Field Office

This office facilitates interactions between NMFS in the northeast and partner organizations and stakeholders in the Mid-Atlantic. Stakeholder Engagement Division staff explain NMFS regulations, policies, and programs to affected stakeholders and act as a channel for stakeholders to provide feedback directly to the Regional Administrator. Habitat Conservation Division staff review coastal development projects in Maryland and provide local support for NMFS habitat conservation efforts. Protected Resources staff supports the conservation of endangered species and mitigate the impacts of development projects on such species through consultations with other Federal agencies.

# National Ocean Service (NOS) - Chesapeake Bay National Estuarine Research Reserve

The 6,249-acre Reserve was designated in 1985 and 1990, and is managed by the Maryland Department of Natural Resources. The Reserve is comprised of three components: Monie Bay, Otter Point Creek, and Jug Bay. The multi-component Chesapeake Bay Reserve in Maryland reflects the diversity of estuarine habitats found within the Maryland portion of the Bay. Research at the reserve focuses on methods to restore submerged aquatic vegetation, turtle utilization of wetlands, and wild rice restoration techniques.

# MD-1 through 5

# Chesapeake Bay Region

# National Marine Fisheries Service (NMFS) - Chesapeake Bay Office

The NOAA Chesapeake Bay Office is headquartered in Annapolis, Maryland, co-located with the state/federal Chesapeake Bay Program, enabling close collaboration with Maryland state agencies, federal government agencies, scientists, watermen, conservation groups, and other partners. The Office administers cooperative programs on Ecosystem Science, Coastal and Living Resource Management, and Environmental Literacy; supports Bay-wide fisheries research and oyster restoration; provides blue crab stock assessment to state fisheries managers; operates and maintains the Chesapeake Bay Interpretive Buoy System; co-leads NOAA's Choptank River Habitat Focus Area, and supports broad federal involvement in environmental education in the region, including managing the Chesapeake Bay Watershed Education and Training (B-WET) grant program.

## National Marine Fisheries Service (NMFS) - Chesapeake Bay Interpretive Buoy System

The NOAA Chesapeake Bay Office operates and maintains "smart buoys" in key locations throughout Maryland's portion of the Chesapeake Bay including the Susquehanna River (Havre de Grace), Patapsco River (Baltimore), Severn River (Annapolis), upper Potomac River (Washington, D.C), and mouth of the Potomac River (Point Lookout) that provide real-time meteorological, oceanographic, and water-quality data. Observations are available on the web, at a mobile version of the website, by calling toll-free 877-BUOY-BAY, or using free mobile apps available for Android and iPhone smartphones. The ten Chesapeake Bay Interpretive Buoy System buoys also mark and interpret points along the Captain John Smith Chesapeake National Historic Trail and serve as an important component of the Chesapeake Bay Observing System.

## National Marine Fisheries Service (NMFS) - Restoration Center

The NMFS Restoration Center works with private and public partners in Maryland to remove invasive species and dams, modify culverts, restore tidal wetlands and submerged aquatic vegetation, and rebuild the native oyster population. 275 projects have been constructed in the state since 1996, restoring more than 3,100 acres of habitat and opening more than 75 stream miles. The Community-based Restoration Program and its partners have restored more than 250 acres of tidal salt marsh in Maryland. Volunteers have contributed more than 100,000 hours in these restoration efforts.

## Chesapeake Bay

## National Ocean Service (NOS) - PORTS®

A Physical Oceanographic Real-Time System (PORTS®) is operated cooperatively with the local maritime community in Chesapeake Bay at which real-time data are quality-controlled and disseminated to local users for safe and efficient navigation. CO-OPS partners with the Maryland Port Administration and the Navy to deliver real-time observations and predictions of water levels, currents, bridge air gap and meteorological parameters.

## National Ocean Service (NOS) - NOAA Survey Vessel Bay Hydrographer II

The Office of Coast Survey operates the NOAA Survey Vessel *Bay Hydrographer II* to acquire hydrographic survey data off the U.S. Atlantic coast, concentrating primarily in the Chesapeake Bay. The *Bay Hydrographer II* is equipped with state-of-the-art hydrographic and navigation equipment, including Differential Global Positioning Systems, a Multibeam Bathymetric Sonar System, and a high-resolution digital Side Scan Sonar system. These systems along with diver investigations of submerged wrecks and obstructions are used to update NOAA's nautical charts in the Chesapeake Bay area. The Office of Coast Survey also uses the *Bay Hydrographer II* as its primary platform to test and evaluate new and emerging hydrographic survey technologies. One such technology that has been tested by this crew in the past is the Autonomous Underwater Vehicle (AUV)—a torpedo-shaped robot that is programmed to guide itself through the water and collect seafloor data—multiplying the amount of data NOAA's survey fleet collects. Although the vessel is homeported in Norfolk, Virginia, it spends a good part of the season near Solomons, Maryland.

#### **Baltimore**

# Office of Oceanic and Atmospheric Research (OAR) - Science On a Sphere®

Science On a Sphere (SOS) is a room-sized global display system that uses computers and video projectors to display planetary data onto a six-foot diameter sphere, analogous to a giant animated globe. Researchers at NOAA developed Science On a Sphere® as an educational tool to help illustrate Earth System science to people of all ages. Animated images of atmospheric storms, climate change, and ocean temperature can be shown on the sphere, which is used to explain complex environmental processes in a way that is simultaneously intuitive and captivating.

# MD-4 Calverton

# National Environmental Satellite, Data, and Information Service (NESDIS) - NOAA CoastWatch Program

The CoastWatch mission is to provide and ensure timely access to near real-time satellite data to protect, restore, and manage U.S. coastal ocean resources, and understand climate variability and change to further enhance society's quality of life. Our primary users include Federal, State, and local marine scientists, coastal resource managers, and the public. There are two components to CoastWatch: Central Operations and Regional Nodes. Central Operations, managed by NOAA's National Environmental Satellite, Data, and Information Service (NESDIS), coordinates the processing, delivery, quality control and storage of data products. The six regional nodes are made up of other NOAA line offices that participate in the CoastWatch Program. They are located around the country, hosting equipment and personnel to provide near real-time data distribution and regional scientific expertise to the local user community. Together, central operations and the regional nodes provide for the distribution pathway for CoastWatch data products.

National Environmental Satellite, Data, and Information Service (NESDIS) - Research and Product Development
The Center for Satellite Applications and Research (STAR) is the science arm of the National Environmental Satellite,
Data and Information Service (NESDIS), which acquires and manages the nation's operational Earth-observing satellites.
NESDIS provides data from these satellites, and conducts research to make that possible. STAR's mission is to transfer satellite observations of the land, atmosphere, ocean, and climate from scientific research and development into routine operations, and to offer state-of-the-art data, products and services to decision-makers.

# National Environmental Satellite, Data, and Information Service (NESDIS) - <u>Petersen Betty Petersen Memorial</u> <u>Library</u>

Betty Petersen Memorial Library is a branch of the NOAA Central Library funded by the National Centers for Environmental Prediction and NESDIS Center for Satellite Applications and Research. The library contains a specialized meteorological and oceanographic collection of about 7,000 volumes. A small number of those volumes cover physics, mathematics, historical weather information, and computer support. In addition, the library has atlases, a collection of WMO publications, NOAA/NESDIS technical notes and technical reports, NWS/NCEP technical notes and reports, and weather or ocean related publications from other government organizations, from other countries, and from universities.

## Largo

# Office of the Chief Information Officer (OCIO) - Information Technology Center

The Information Technology Center (ITC) is a datacenter providing 24x7 operations and support for the financial applications of NOAA and its parent agency, the Department of Commerce (DOC). The largest such application is known as the Commerce Business System (CBS), which processes approximately 58% of the DOC budget. The ITC hosts other DOC-wide support systems including Cyber-Security Assessment and Management (CSAM) which provides a repository for documentation prepared for FISMA-mandated Certification and Accreditation of all DOC IT systems. Another DOC system at the ITC is known as SmartPay II, the system for handling all DOC Purchase, Fleet, and Travel credit cards under contract with JP Morgan/Chase and MasterCard. While hosting around 50 applications, the ITC is also being viewed as a possible location for consolidation of the financial processing of the DOC.

## Suitland

# National Environmental Satellite, Data, and Information Service (NESDIS) - Office of Satellite Data Processing and Distribution

The Office of Satellite Data Processing and Distribution (OSDPD) operates 24x7 to manage and direct the operation of the central ground facilities which ingest, process, and distribute environmental satellite data and derived products to domestic and foreign users. OSDPD also partners with the US Coast Guard and US Navy to operate the US National Ice Center. OSDPD is also responsible for operating the US Mission Control Center, which is an integral part of the global satellite-assisted search and rescue system.

National Environmental Satellite, Data, and Information Service (NESDIS) - Satellite Assisted Search and Rescue The NOAA Satellite Operations Facility provides a home for NOAA's satellite program operations, processing and development of future observing platforms. It is also where the Search and Rescue Satellite Aided Tracking (SARSAT) program resides. COSPAS-SARSAT is an international, humanitarian search and rescue system that uses a network of satellites and ground stations to quickly detect and locate emergency beacons carried by ships, aircraft, or individuals in distress. SARSAT is the United States contribution to the international system. NOAA's polar (POES) and geostationary (GOES) satellites are part of the space segment of the Cospas-Sarsat System, and are operated by NOAA Satellite Operations Control Center (SOCC) at the NSOF. NSOF is also the home of the US SARSAT Mission Control Center (USMCC), which receives distress information and notifies the appropriate Rescue Coordination Center automatically when a beacon alert is detected. SARSAT has saved more than 6,000 lives in the United States since 1982.

National Environmental Satellite, Data, and Information Service (NESDIS) – Office of Satellite Operations

The Office of Satellite Operations (OSO) manages and directs the operation of NOAA's Geostationary Operational Environmental Satellite (GOES) and NOAA's Polar-orbiting Operational Environmental Satellite (POES), which includes command and control, tracking, acquisition of data from these spacecraft. OSO has operational responsibility for the Satellite Operations Control Center (SOCC) at Suitland, MD and Command and Data Acquisition (CDA) facilities at Wallops, Virginia, and Fairbanks, Alaska to command and control the satellites, to track the satellites, and to acquire their data. Under agreement with the Department of Defense, OSO also provides command and control for the Defense Meteorological Satellite Program (DMSP). In 2008, OSO assumed operational responsibility for the Jason 2 satellite. OSO supports the launch, activation, and evaluation of new satellites and the in-depth assessment of satellite and ground systems anomalies.

## Office of Oceanic and Atmospheric Research (OAR) - N-Wave NOAA Science Network

N-Wave is NOAA's science network connecting NOAA, academic, and state research network communities to data and resources needed to advance environmental science.

# MD-5 Beltsville

# Office of Oceanic and Atmospheric Research (OAR) - Atmospheric Mercury Monitoring Network

NOAA maintains a specialized ambient air mercury measurement site near Beltsville, Maryland; operated as part of the National Atmospheric Deposition Program's Atmospheric Mercury Monitoring Network (AMNet). The state-of-the-art monitoring provides semi-continuous measurements of reactive gaseous mercury, elemental mercury, and particulate mercury in air. Additional data are collected for ambient air concentrations of trace gases (e.g., sulfur dioxide, nitrogen oxides, carbon monoxide, ozone), as well as meteorological parameters such as temperature, humidity, precipitation, wind speed and direction. The site, in operation since late 2006, provides high quality data to air quality and mercury transport models.

## College Park

# National Environmental Satellite, Data, and Informational Service (NESDIS) - NOAA CoastWatch Program

The CoastWatch mission is to provide and ensure timely access to near real-time satellite data to protect, restore, and manage U.S. coastal ocean resources, and understand climate variability and change to further enhance society's quality of life. Our primary users include Federal, State, and local marine scientists, coastal resource managers, and the public. There are two components to CoastWatch: Central Operations and Regional Nodes. Central Operations, managed by NOAA's National Environmental Satellite, Data, and Information Service (NESDIS), coordinates the processing, delivery, quality control and storage of data products. The six regional nodes are made up of other NOAA line offices that participate in the CoastWatch Program. They are located around the country, hosting equipment and personnel to provide near real-time data distribution and regional scientific expertise to the local user community. Together, central operations and the regional nodes provide for the distribution pathway for CoastWatch data products. The NOAA CoastWatch Program coordinates with NOAA Lines offices to host the regional CoastWatch nodes on the East Coast and West Coast, the Gulf of Mexico, the Great Lakes, Alaska and Hawaii.

National Environmental Satellite, Data, and Information Service (NESDIS) - Research and Product Development
The Center for Satellite Applications and Research (STAR) is the science arm of the National Environmental Satellite,
Data and Information Service (NESDIS), which acquires and manages the nation's operational Earth-observing satellites.
NESDIS provides data from these satellites, and conducts research to make that possible. STAR's mission is to transfer satellite observations of the land, atmosphere, ocean, and climate from scientific research and development into routine operations, and to offer state-of-the-art data, products and services to decision-makers.

National Environmental Satellite, Data, and Information Service (NESDIS) - Satellite Climate Studies Branch
The Satellite Climate Studies Branch (SCSB) exploits the capabilities of Earth-observing satellites to study the climate variations of the atmosphere, the land and the oceans. The Branch also uses remote satellite observations as well as model simulations to detect, monitor and forecast the effects of climate change on the environment, including effects on its ecosystems. The branch is co-located with the University of Maryland's Cooperative Institute for Climate and Satellites (CICS) at the M-square Research Complex in College Park, MD. This partnership between NOAA and CICS provides for cutting edge research to be performed in a university setting where NOAA and academic researchers work jointly on topics of high interest and priority to NOAA. The Cooperative Institute for Climate and Satellites is formed through a consortium of academic, non-profit and community organizations with leadership from the University of Maryland, College Park and North Carolina State University.

# National Environmental Satellite, Data, and Information Service (NESDIS) - Cooperative Institute for Climate and Satellites

In 2009, the Cooperative Institute for Climate and Satellites (CICS) was formed through a national consortium of academic, non-profit, and community organizations, with leadership from the University of Maryland College Park (UMCP) and North Carolina State University with principal locations in College Park, Maryland and Asheville, North Carolina. CICS is administered as part of theNOAA/NESDIS/STAR Cooperative Research Program Institutes, which is the first experiment by NOAA and academic institutions to engage a geographically dispersed, diverse set of more than 20 partner institutions across the United States to address environmental change, their prediction, and potential impacts. The Cooperative Institute for Climate and Satellites-Maryland (CICS–MD) is a branch of CICS and focuses on research in satellite observations and Earth system modeling.

## National Weather Service (NWS) - NOAA Center for Weather and Climate Prediction

The National Centers for Environmental Prediction (NCEP), an arm of the NOAA's National Weather Service (NWS), is comprised of nine distinct Centers that provide national and international weather products in support of NWS field offices, government agencies, emergency managers, private sector meteorologists, meteorological organizations and societies, and private companies throughout the world. NCEP is a critical national resource in national and global weather prediction. NCEP is the starting point for nearly all weather forecasts in the United States. Headquartered in Camp Springs, the NCEP prepares and makes available national forecasts and outlooks of weather and climate. Each of the nine Centers, which comprise NCEP, has a specific responsibility for a portion of the NCEP products and services suite.

Five of the nine Centers are located at the NOAA Center for Weather and Climate Prediction on the campus of the University of Maryland in College Park. First, there is NCEP Central Operations, which sustains and executes the operational suite of the numerical analysis and forecast models and prepares NCEP products to be provided to users. It also links all nine of the national Centers together via computer and communications-related services. Second, the Environmental Modeling Center improves weather, marine, and climate predictions for the Nation by developing and improving computer models of the atmosphere and oceans using worldwide weather observations. The forecast models are the starting point for all weather forecasts, federal and private sector. Third, the Weather Prediction Center provides an array of analyses and guidance forecast products specializing in rainfall and snowfall forecasts as well as general weather pattern forecasts out to seven days. The information is used by NWS field offices and private meteorologists throughout the United States. Fourth, the Ocean Prediction Center produces and issues marine meteorological and oceanographic analyses, forecasts, and warnings for the Atlantic and Pacific oceans. Finally, the Climate Prediction Center monitors and predicts the climate for time scales ranging from weeks to seasons and provides information about the long-term global effects of climate patterns on the nation for socioeconomic benefits and improved decision-making.

## Office of Oceanic and Atmospheric Research (OAR) - Air Resources Laboratory

The Headquarters of ARL is located in College Park, MD. In addition to overseeing its divisions, Headquarters develops products to augment the operational product suites of the NOAA service-oriented line offices (particularly the National Weather Service). This includes the research and development of improved dispersion models for emergency response and air quality forecast models. Headquarters also improves the understanding of climate variability and trends, the exchange of pollutants between the air and land, and the sources of mercury that influence sensitive ecosystems.

## NOAA Office of Education - NOAA Center for Atmospheric Sciences

The NOAA Center for Atmospheric Sciences (NCAS) is led by Howard University in collaboration with five partners: Jackson State University, the University of Texas at El Paso, the University of Puerto Rico at Mayaguez, the State University of New York at Albany, and University of Maryland College Park. This Center is part of NOAA's Educational Partnership Program with Minority Serving Institutions. NCAS research improves the accuracy of weather and climate forecast models (particularly in predicting precipitation), studies atmospheric chemical processes and their effects on local, regional, and global scales, and produces highly educated and skilled students from underrepresented communities for research and operational careers in weather and climate prediction. NCAS' primary collaborator is the National Weather Service.

## Greenbelt

# National Environmental Satellite, Data, and Information Service (NESDIS) - GOES-R Program Office

The GOES-R Series Program Office is responsible for the acquisition of the next generation, NOAA Geostationary Operational Environmental Satellite (GOES) "R" Series to maintain NOAA's legacy geostationary satellite capability in support of NOAA's missions. While NOAA manages and funds the GOES-R Series Program, its development is a collaborative effort between NOAA and NASA with significant assistance from a nation-wide network of aerospace companies. The GOES-R series of satellites will be comprised of improved spacecraft and instrument technologies, which will result in more timely and accurate weather forecasts, and improve support for the detection and observations of meteorological phenomena that directly affect public safety, protection of property, and ultimately, economic health and development. The first launch of the GOES-R series satellite is scheduled for October 2016.

## National Environmental Satellite, Data, and Information Service (NESDIS) - Joint Polar Satellite System

The Joint Polar Satellite System is the next generation of polar-orbiting environmental satellites for DOC. Suomi NPP satellite, part of the Joint Polar Satellite System (JPSS) constellation of satellites launched in 2011, circles the Earth approximately once every 100 minutes. During these rotations, JPSS satellites will provide global coverage, monitoring environmental conditions, collecting, disseminating and processing data about the Earth's weather, atmosphere, oceans, land, and near-space environment. JPSS will be able to monitor the earth from pole-to-pole and provide data for long range weather and climate forecasts. The data gathered by JPSS will aid in reducing the potential loss of human life and property by allowing more efficient disaster planning and response to severe weather conditions such as tornadoes and floods. Citizens will benefit from satellite data in the areas of general aviation, agriculture, and maritime activities. Military users will benefit from JPSS as well, tactically and strategically. JPSS will collect a massive amount of very precise earth surface, atmospheric and space environmental measurements from a variety of onboard sensors. This volume of data will allow scientists and forecasters to monitor and predict weather patterns with greater accuracy. In addition to this increased volume of information, JPSS will also improve the speed of weather forecasting through a fourfold improvement to data delivery times. These improvements in the volume and the speed of delivery are largely made possible by JPSS' ground systems that will collect and relay JPSS sensor data via a closed dedicated network to NOAA NESDIS for central processing.

# National Environmental Satellite, Data, and Information Service (NESDIS) - <u>Wallops Command and Data</u> Acquisition Backup Facility

The backup command and data acquisition facility co-located with NASA Goddard Space Flight Center in Greenbelt, Maryland ensures data from NOAA's GOES satellites continues to flow if the Wallops, Virginia station is threatened or hit by a hurricane. A 54-foot antenna has transmitters for sending commands to the satellites, and receivers for collecting information from the satellites. The backup station will normally be operated in a standby mode. Engineers, programmers and operators from the Wallops site will be deployed as necessary when a hurricane threatens Wallops, or for other foreseeable emergencies. In the event the back-up facility is activated, a rapid response team from NOAA's Satellite Operations Control Center in Suitland, Md., will initially bring the station on-line until personnel arrive from Wallops.

#### Office of Oceanic and Atmospheric Research (OAR) - Science On a Sphere

Science On a Sphere (SOS) is a room-sized global display system that uses computers and video projectors to display planetary data onto a six-foot diameter sphere, analogous to a giant animated globe. Researchers at NOAA developed Science On a Sphere® as an educational tool to help illustrate Earth System science to people of all ages. Animated images of atmospheric storms, climate change, and ocean temperature can be shown on the sphere, which is used to explain complex environmental processes in a way that is simultaneously intuitive and captivating.

## Waldorf

# Office of Oceanic and Atmospheric Research (OAR) - Science On a Sphere

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# MD-6

# Gaithersburg

## Office of the Chief Information Officer (OCIO) - High Performance Computing and Communications

The Office of the Chief Information Officer manages research and development high performance computing for weather and climate modeling, research, and predictions, supporting improvements in areas such as the prediction of severe weather, seasonal prediction of temperature and precipitation, and forecasting the next Sandy-like storm.

#### Germantown

# NOAA Finance Office (NFO) - Eastern Operations Branch

The Eastern Operations Branch processes payments for services, supplies, and materials commonly required to support the Department's programs (i.e. lab equipment, non- personal services, travel expenses, utilities, and vessel charters). In providing these services, our staff examines vouchers and invoices, issues bills for receivables, receives and deposits receipts, pays various types of accounts payable documents, and enters other types of accounting transactions. The staff also responds to clients about finance-related concerns and problems.

## Office of the Chief Information Officer (OCIO) - Administrative Systems Division

The Administrative Systems Division provides management and oversight of administrative systems in NOAA. Information Technology services, including software and database solution design, development, user support, ongoing application support and management of administrative applications are provided to NOAA and DOC organizations by the Division.

# MD-7 Baltimore

## NOAA Office of Education - Living Marine Resources Cooperative Science Center

The University of Maryland - Eastern Shore leads NOAA's Living Marine Resources Cooperative Science Center (LMRCSC) with its partners: Delaware State University, Hampton University, Savannah State University, the University of Maryland Center for Environmental Science Institute of Marine and Environmental Technology, Oregon State University, and the University of Miami Rosenstiel School of Marine and Atmospheric Sciences. This Center is part of NOAA's Educational Partnership Program with Minority Serving Institutions. LMRCSC conducts research in the marine sciences, with areas of specialization in fisheries science, oceanography, ecology, environmental sciences, and environmental molecular biology/biotechnology. LMRCSC develops a pool of highly educated and skilled students from underrepresented groups in the marine sciences. LMRCSC's primary collaborator is the National Marine Fisheries Service.

## NOAA Office of Education - NOAA Cooperative Remote Sensing Science and Technology Center

The NOAA Cooperative Remote Sensing Science and Technology Center (CREST) is led by the City College of the City University of New York in collaboration with Hampton University, the University of Maryland-Baltimore County, the University of Puerto Rico at Mayaguez, California State University-Los Angeles and corporate partners including Raytheon and Northrop Grumman. CREST is part of NOAA's Educational Partnership Program with Minority Serving Institutions. CREST's research into cutting edge remote sensing applications supports NOAA climate, weather and water, and ecosystem goals. The Center's research focuses on all aspects of remote sensing - sensor development, satellite remote sensing, ground-based field measurements, data processing and analysis, modeling, and forecasting. CREST trains students in science and engineering with a focus on underrepresented minorities in NOAA related sciences. CREST's primary collaborator at NOAA is the National Environmental Satellite, Data, and Information Service, and CREST research is also aligned with the needs of NOAA's National Weather Service, and NOAA's Office of Oceanic and Atmospheric Research.

# MD-8 Silver Spring

## Acquisition and Grants Office (AGO) - Headquarters

The Acquisition and Grants Office provides financial assistance and acquisition services for NOAA by overseeing and implementing all processes related to contracts and grants. For FY 2010, NOAA issued 2,306 grants, totaling over \$1.061 billion, to partner organizations and institutions throughout the United States and our territories.

# National Environmental Satellite, Data, and Information Service (NESDIS) - <u>National Centers for Environmental</u> <u>Information</u>

NOAA's National Centers for Environmental Information (NCEI) are responsible for hosting and providing access to one of the most significant archives on earth, with comprehensive oceanic, atmospheric, and geophysical data. From the depths of the ocean to the surface of the sun and from million-year-old tree rings to near real-time satellite images, NCEI is the Nation's leading authority for environmental information. By preserving, stewarding, and maximizing the utility of the Federal government's billion-dollar investment in high-quality environmental data, NCEI remains committed to providing products and services to private industry and businesses, local to international governments, academia, as well as the general public. NCEI headquarters are located in Asheville, North Carolina with other major locations in Boulder, Colorado; Silver Spring, Maryland; and Stennis Space Center, Mississippi.

# National Environmental Satellite, Data, and Information Service (NESDIS) - Office of Projects, Planning, and Analysis

The focus of Office of Projects, Planning, and Analysis (OPPA) is on flight projects (data exploitation, and execution of domestic, international, and commercial partnerships) in order to meet NOAA observation requirements. OPPA's core responsibilities include: project management and integration lead for data exploitation opportunities; providing on-orbit anomaly support and sustainment for existing operational systems; conducting studies of requirements definition; planning of overall project and partnership systems; performing conceptual and detailed engineering for these flight project activities; developing and managing the acquisition of partnership-based flight project systems (spacecraft, instruments, and launch services); and coordinating the integration, installation, and acceptance of NOAA civil operational environmental satellites systems for flight projects and partnerships. OPPA supports the procurement, maintenance and testing of the U.S. instruments on the European MetOp satellites. As part of this responsibility, the program administers a comprehensive requirements identification and analysis process, and translates requirements for data, products, and services into flight projects, exploitation, and partnerships. It establishes partnership-based flight project system objectives, as well as performance, engineering, and cost criteria. OPPA also develops interface standards and uses technical and engineering consultation for system capability, development, implementation, and deployment to serve the

environmental remote-sensing satellite user community. OPPA performs end-to-end system design studies for flight projects and partnerships, and integrates NESDIS's space and ground concept of operations as applicable. OPPA provides continued support for MetOp's data product development activities. In a broader role, the program represents NOAA at international forums; provides technical representation at these venues ensures continued foreign contributions; and develops cost-sharing alternatives with international partners. Also, OPPA provides oversight to the systems acquisition process for flight projects, exploitation initiatives, and partnerships. OPPA manages the acquisitions through launch of the DSCOVR, Jason-3, COSMIC-2 partnership programs.

National Environmental Satellite, Data, and Information Service (NESDIS) - Office of Satellite Ground Services NOAA's Office Satellite Ground Services (OSGS) is to provide and serve as the single organization for planning and execution of all common ground services. OSGS is a consolidated effort of different ground components that will position NESDIS to effectively and efficiently develop and maintain its core ground systems capabilities. OSGS is composed of the following: Comprehensive Large Array Data Stewardship System (CLASS) development, Satellite Product Development, Common Ground Services Architecture, NPOESS Preparatory Data Exploitation (NDE), and Ground Systems. OSGS plans, acquires, develops, integrates, transitions to operations and sustains common ground services for NOAA's environmental satellite systems. OSGS core responsibilities include: directing and conducting analyses; defining and designing systems; and developing, acquiring, transitioning, and sustaining activities for new and existing satellite ground systems. OSGS provides IT hardware upgrades for real time satellite control and telemetry processing system (Polar Acquisition Control System) and antenna tracking components (both electronic and mechanical). As part of this responsibility, OSGS assists in the development and maintenance of Level 1 requirements and leads the development and maintenance of lower-level requirements. SGS develops and sustains command and data acquisition, communications, command and control, product generation and distribution, enterprise management, algorithm operationalization, and data archival services for NOAA's environmental satellites. OSGS provides engineering and project management for ground systems architecture, design, development, integration and testing, infrastructure, and facilities. OSGS participates in system verification and validation efforts and also in life cycle reviews for satellite acquisition programs and projects.

# National Environmental Satellite, Data, and Information Service (NESDIS) - Office of System Architecture and Advanced Planning

NOAA's Office System Architecture and Advanced Planning (OSAAP) applies systems engineering principles to balance the demands of high technical quality and to meet cost and schedule requirements across NESDIS to ensure and enable the success of its mission, vision, and objectives. Its core responsibilities include enterprise-level system architecture, advanced system and technology planning, management and technical policies and procedures, and system validation, assurance, and adjudication to ensure that comprehensive solutions meet mission objectives. OSAAP performs systems engineering design, analysis, and evaluation of space flight, ground, data, and archive segments. As part of this responsibility, the program defines policies and procedures for systems engineering related to acquisitions, operations, archiving, and sustainment for implementation throughout NESDIS. OSAAP also establishes and administers the quality management system across NESDIS. It does this by identifying best practices and providing overall systems assurance and configuration management to ensure compliance to the NESDIS quality management system through the life cycle of each NESDIS enterprise. In addition to performing top-level requirements definition, traceability, and final validation and verification, the program serves as principal advocate for ensuring and enabling the success and mitigating risk of the NESDIS enterprise. This will enable NESDIS to meet its mission, vision, and objectives through systems analysis of current and future enterprise architectures. OSAAP maintains enterprise lessons learned toward process improvement for future NESDIS implementation and serves as the expert technical liaison relating to the end-to-end systems architecture.

## National Environmental Satellite, Data, and Information Service (NESDIS) - Headquarters

NOAA's National Environmental Satellite, Data, and Information Service (NESDIS) is the largest civil operational environmental space agency and most extensive holder of atmospheric and oceanographic data in the world. NESDIS is dedicated to providing timely access to global environmental data from satellites and other sources to promote, protect, and enhance the Nation's economy, security, environment, and quality of life. To fulfill its responsibilities, NESDIS acquires and manages the Nation's operational environmental satellites, conducts related research, and through its National Centers for Environmental Information, provides data and information services, and conducts related research. NESDIS It is in the process of developing and acquiring its next generation operational satellites. NESDIS has extensive partnerships with the National Aeronautics and Space Administration and the Department of Defense. It also collaborates with international partners to foster full and open data exchanges to support NOAA and the United States weather and environmental monitoring priorities. NESDIS environmental satellite observations provide important contributions to U.S. national security by providing military users with real-time and near-real-time observations for their aircraft, ships, ground forces and facilities worldwide. NESDIS also contributes to the national economy by providing environmental data that support resource management of energy, water, and global food supplies.

## National Marine Fisheries Service (NMFS) - NOAA Seafood Inspection Program

NOAA's Seafood Inspection Program conducts a voluntary inspection program for fishery products on a fee-for-service basis which assure compliance with all applicable food regulations. The office offers a wide range of professional services to the area's fishermen and fish processors including process and product inspection, product grading, lot inspection, laboratory analysis, and training. All edible foodstuffs, ranging from whole fish to formulated products, as well as fishmeal used for animal foods, are eligible for inspection and certification.

## National Marine Fisheries Service (NMFS) - Office of Law Enforcement

The mission of NOAA Fisheries Office of Law Enforcement is to protect global marine resources by enforcing domestic laws and international treaties and obligations dedicated to protecting wildlife and their natural habitat. Effective fisheries law enforcement is critical to creating a level playing field for U.S. fishermen and enabling sustainable fisheries to support vibrant coastal communities.

## National Marine Fisheries Service (NMFS) - Office of Sustainable Fisheries

The Office of Sustainable Fisheries (OSF) supports national domestic policy issues, provides support to the regional fishery management councils, and manages Atlantic highly migratory species. OSF works closely with NOAA Fisheries regional offices and science centers, the regional fishery management councils, and the Interstate Marine Fisheries Commissions to end and prevent overfishing, rebuild overfished stocks, and ensure healthy ecosystems. OSF's headquarters office includes the Domestic Fisheries Division, Atlantic Highly Migratory Species Management Division, Regulatory Services Division, and the National Seafood Inspection Laboratory.

## National Marine Fisheries Service (NMFS) - Headquarters

NOAA's National Marine Fisheries Service (NMFS) is responsible for the management, conservation and protection of living marine resources within the United States' Exclusive Economic Zone (water three to 200 mile offshore). Using the tools provided by the *Magnuson-Stevens Act*, NMFS assesses and predicts the status of fish stocks, ensures compliance with fisheries regulations, and works to reduce wasteful fishing practices. Under the *Marine Mammal Protection Act* and the *Endangered Species Act*, NMFS recovers protected marine species (i.e. whales, turtles) without unnecessarily impeding economic and recreational opportunities. With the help of the five regional offices and eight councils, NOAA's National Marine Fisheries Service is able to work with communities on fishery management issues. NMFS works to promote sustainable fisheries and to prevent lost economic potential associated with overfishing, declining species and degraded habitats.

## National Ocean Service (NOS) - Marine Debris Program

The NOAA Marine Debris Program (MDP) leads national and international efforts to research, prevent, and reduce the impacts of marine debris. Marine debris is a pervasive problem which threatens our oceans and coastal environments, navigational safety, the economy, and human health. To address this threat, the program invests in marine debris removal, education and outreach, and research projects in partnership with state and local agencies, tribes, non-governmental organizations, academia, and industry.

## National Ocean Service (NOS) - Center for Coastal Monitoring and Assessment

The Center for Coastal Monitoring and Assessment conducts field research and data analysis to support marine resource management at local, regional, and national levels. We partner with groups ranging from Tribal organizations to state governments to other federal agencies to identify research and monitoring questions of importance to communities. Major research programs include: biogeographic assessments in support of ecosystem management, monitoring and research to help find sources of coastal contamination, assessments of the ecological impacts of climate change, and forecasts to help protect the public from harmful algal blooms.

## National Ocean Service (NOS) - Center for Sponsored Coastal Ocean Research

The Center for Sponsored Coastal Ocean Research administers NCCOS extramural research – a portfolio of 11 programs consisting of many multi-year awards held by over 370 university, state, and government scientists and managers. Research program often cumulative with the development of models explaining how ecosystems work and how they will respond to change, both negative (e.g., pollution or drought) and positive (e.g., protection or restoration). These are used to support sound coastal management decisions and support an ecosystem approach to managing coastal resources. In 2012, the research portfolio focused on: harmful algal blooms, hypoxia, and regional ecosystem science.

## National Ocean Service (NOS) - National Centers for Coastal Ocean Science

National Centers for Coastal Ocean Science provides coastal managers with the information and tools they need to balance society's environmental, social, and economic goals. We are the primary coastal science arm within NOAA's National Ocean Service. Solving environmental problems requires knowledge and power. Scientists have knowledge, but typically limited authority to change behavior. Decision makers have power, but may lack in-depth knowledge of particular problems. Linking these two groups brings knowledge together with power to make informed decisions that can drive social change. NCCOS works directly with managers, industry, regulators, and scientists to deliver relevant, timely, and accurate scientific information and tools. In addition to Headquarters, NCCOS consists of five Centers, two laboratories, and the NOAA RESTORE Act Science Program.

# National Ocean Service (NOS) - National Geodetic Survey Program

The National Geodetic Survey's (NGS) time-tested survey expertise is the foundation for measuring the size, shape, and height of our nation's entire land area. This data comprises the National Spatial Reference System, a set of standard reference points that provide the latitude, longitude, and elevation framework necessary for the nation's land surveying, navigation, positioning, and mapping activities. Committed to making transportation and navigation safer, NGS also conducts airport surveys in the United States to position obstructions and aids to air travel. In addition, NGS conducts a coastal mapping program to provide a regularly updated and consistent national shoreline using remote sensing techniques and technology.

## National Ocean Service (NOS) - Office of Coast Survey

The Office of Coast Survey is responsible for producing the suite of nautical charts that covers the coastal waters of the U.S. and its territories acquiring hydrographic data to update these charts. The Office of Coast Survey also develops hydrographic survey specifications; conducts technological development and application programs to increase efficiency in survey data acquisition, data processing, and chart production; and carries out research to develop techniques and methods for accomplishing these objectives. The Office of Coast Survey ensures safe, efficient and environmentally sound marine transportation that brings an uninterrupted flow of people and goods into and out of our nation's ports. The foundation of the United States economy is the Marine Transportation System--America's network of oceans, rivers, canals, locks and dams. Shipping on these "marine highways" moves people and cargo around the country, and connects us to the global marketplace for international trade and affordable goods.

## National Ocean Service (NOS) - Office for Coastal Management

NOAA's Office for Coastal Management provides national leadership, strategic direction, and services for the coastal management community. Major initiatives housed within this organization include the Coral Reef Conservation Program; the National Coastal Zone Management Program; the National Estuarine Research Reserve, and the Digital Coast. The primary offices are located in Charleston, South Carolina and Silver Spring, Maryland. Satellite office and other field staff are located throughout the coastal zone.

## National Ocean Service (NOS) - Coral Reef Conservation Program

NOAA's Coral Reef Conservation Program brings together multidisciplinary expertise from over 30 NOAA offices and partners. The goal is to protect, conserve and restore coral reef resources. Coral reefs are some of the most biologically diverse ecosystems in the world and provide a range of benefits and vital services to coastal communities but are threatened from unsustainable fishing practices, climate change impacts, and land-based sources of pollution. In response to these threats, NOAA invests in ecosystem-based management initiatives to build marine protected area management capacity; monitors, models and forecasts climate-related risks and vulnerabilities to coral reefs; and fosters partnerships to address and reduce impacts of land-based sources of pollution.

## National Ocean Service (NOS) - Gateway to NOAA

Gateway to NOAA is a permanent exhibit on NOAA's Silver Spring campus highlighting the ways in which NOAA takes the pulse of the planet every day and protects and manages ocean and coastal resources. The exhibit features a number of engaging displays including the "NOAA Heritage" section featuring historic scientific instruments and other tools and artifacts from the agency's 200-year history and "Earth Observations" section highlighting the ways in which NOAA gathers information about our environment on land, sea, and sky. Do you know the difference between weather and climate? Get the answer in the "Weather and Climate" section, which focuses on NOAA's role in forecasting the weather and understanding climate processes. In the "Water" section, the public can learn how NOAA supports safe navigation and commerce, explores the deep sea, and manages and protects coastal and ocean resources both locally and across the nation; and go behind the headlines in the "NOAA in the News" section, which features and interactive display through which visitors can explore our ocean world.

# National Ocean Service (NOS) - Office of National Marine Sanctuaries

Marine sanctuaries, or underwater national parks, form a network of protected areas that are both environmentally and culturally important to our nation. They provide habitat for creatures and plants of the sea, and serve as living laboratories for the study of coastal and ocean environments. There are currently 13 marine sanctuaries and 1 marine monument in the system. On October 7, 2015, The Office of National Marine Sanctuaries issued a Federal Register Notice to consider the designation of Mallows Bay-Potomac River (MD-5) as a National Marine Sanctuary. The Office also includes the National Marine Protected Areas Center.

## National Ocean Service (NOS) - Office of Response and Restoration Program

Every day, oil spills, hazardous material releases, vessel groundings, and fierce storms assault our Nation's coasts. The Office of Response and Restoration (OR&R) is the focal point within NOAA to prevent, plan for, and respond to these disasters. OR&R protects America's coastal marine trust resources, mitigate threats, reduce harm and restore ecological function by providing comprehensive solutions to environmental hazards caused by oil, chemical and marine debris. OR&R also empowers communities by providing training, guidance, and the decision-making tools that will help improve the health of our coasts.

## National Ocean Service (NOS) - Mid-Atlantic and Caribbean Marine Debris Regional Coordinator

The NOAA Marine Debris Program (MDP) supports national and international efforts to research, prevent, and reduce the impacts of marine debris. The mid-Atlantic and Caribbean Regional Coordinator, based in Silver Spring, supports coordination efforts with regional stakeholders, provides support to grant-funded projects, tracks progress of projects, and conducts regional marine debris outreach to local audiences. Stakeholders in Maryland, Virginia, Delaware and the District of Columbia have initiated development of a regional marine debris reduction plan.

# National Ocean Service (NOS) - Headquarters

NOS delivers the tools and services needed to understand, predict, and respond to the challenges we face along America's 95,000 miles of shoreline and 3.5 million square miles of coastal, Great Lakes, and deep-ocean waters. This vast area generates more than 60 percent of the nation's gross national product each year. Yet our oceans and coasts are facing unprecedented pressure from threats such as climate change, marine debris, and port congestion. In response to these threats, NOS scientists, natural resource managers, and specialists are seeking solutions that continue to grow our nation's coastal economy while sustaining a healthy and productive environment. In partnership with other NOAA offices; federal, state, and local agencies; industry representatives; members of the academic community; and others, NOS focuses on science, technology, innovation, and education to keep our oceans and coasts safe, healthy and productive.

## National Ocean Service (NOS) - U.S. Integrated Ocean Observing System Program

The Integrated Ocean Observing System (IOOS) is a multidisciplinary system designed to enhance our ability to collect, deliver, and use ocean information. The goal is to provide continuous data on our open oceans, coastal waters, and Great Lakes in the formats, rates, and scales required by scientists, managers, businesses, governments, and the public to support research and inform decision-making. No single agency or organization has the capacity or resources to fully implement the U.S. IOOS on a national scale. IOOS represents a national partnership in which 17 Federal agencies and 11 Regional Associations share responsibility for the design, operation, and improvement of a national network of observations. The 17 Federal agency partners also provide our nation's contributions to advance the global component.

## National Weather Service (NWS) - Headquarters

The National Weather Service (NWS) provides weather, water, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, for the protection of life and property and the enhancement of the national economy. NWS data and products form a national information database and infrastructure, which can be used by other governmental agencies, the private sector, the public, and the global community. The function of headquarters is to provide national integration and oversight of the administrative, programmatic, financial, international, information technology, and other organizational management functions, and to conduct the national level strategic planning, communications, and diversity activities. There are a number of NWS headquarters offices based in Silver Spring, including the Office of the Assistant Administrator (the NWS Director), , the Office of Science and Technology Integration, the Analyze, Forecast and Support Office, the Office of Observations, the Office of Central Processing, Office of Dissemination, and the Office of Facilities .

## **NOAA Commissioned Officer Corps - Commissioned Personnel Center**

The NOAA Commissioned Officer Corps Commissioned Personnel Center (CPC) provides the full spectrum of human resources and career management services to NOAA Corps Officers. The Officer Career Management Division establishes and maintains an appropriate depth and breadth of professional expertise within the NOAA Commissioned Corps to meet the requirements of the agency. It accomplishes this through selective recruiting and training, participation in the assignment process, and career counseling. It directs and supports the activities of the NOAA Officer Training Center (OTC). The Personnel Management Division manages officer promotions, awards, records, transfers, appointments, benefits, retirements, evaluation processing, personnel actions and entitlement programs, managing Officers' entire careers from the day they enter Basic Officer Training until retirement and beyond.

## **NOAA Commissioned Officer Corps - <u>Headquarters</u>**

The NOAA Commissioned Officer Corps is one of the seven uniformed services of the United States. The service, consisting of approximately 321 commissioned officers, is an integral part of NOAA. The NOAA Corps traces its roots back to the former U.S. Coast and Geodetic Survey, which dates back to 1807 and President Thomas Jefferson. The NOAA Corps today provides a cadre of professionals trained in engineering, earth sciences, oceanography, meteorology, fisheries science, and other related disciplines. Officers operate ships, fly aircraft, manage research projects, conduct diving operations, and serve in staff positions throughout NOAA.

# NOAA Library and Information Services Division - NOAA Central Library

The NOAA Central Library provides information and research support to NOAA staff and the public. The library also networks with over 30 NOAA libraries across the nation. Disciplines covered include weather and atmospheric sciences, oceanography, ocean engineering, nautical charting, marine ecology, marine resources, ecosystems, coastal studies, aeronomy, geodesy, cartography, mathematics and statistics. The mission of the NOAA Library and Information Services is to ensure the delivery of scientific, technical, and legislative information to users. The principal resource for accomplishing this mission is a research collection with a comprehensive coverage of hydrographic surveying; oceanography, meteorology, and hydrology; living marine resources, and meteorological satellite applications.

## Office of Oceanic and Atmospheric Research (OAR) - Climate Program Office

The OAR Climate Program Office (CPO) mission is to advance scientific understanding, monitoring, and prediction of climate and its impacts to enable effective decisions. CPO's position at the intersection of NOAA's science and service missions, the climate research community, and the broader climate enterprise enables it to lead a research agenda and forge partnerships that enhance society's ability to make effective decisions. CPO manages the competitive research programs by which NOAA funds high-priority climate science to advance understanding of atmospheric, oceanic, land-based, and snow and ice processes, and how they affect climate. CPO's foci include developing a broader user community for climate products and services; providing a focal point within NOAA for collaborative climate science and services; leading NOAA's climate education and outreach activities; and helping to coordinate international climate science and services. CPO supports projects across the nation conducted by investigators outside the federal government, such as through academic and private sectors, within the federal government, and in NOAA Cooperative Institutes.

## Office of Oceanic and Atmospheric Research (OAR) - N-Wave NOAA Science Network

N-Wave is NOAA's science network connecting NOAA, academic, and state research network communities to data and resources needed to advance environmental science.

## Office of Oceanic and Atmospheric Research (OAR) - Science On a Sphere®

Science On a Sphere (SOS) is a room-sized global display system that uses computers and video projectors to display planetary data onto a six-foot diameter sphere, analogous to a giant animated globe. Researchers at NOAA developed Science On a Sphere® as an educational tool to help illustrate Earth System science to people of all ages. Animated images of atmospheric storms, climate change, and ocean temperature can be shown on the sphere, which is used to explain complex environmental processes in a way that is simultaneously intuitive and captivating.

# Office of Oceanic and Atmospheric Research (OAR) - National Sea Grant College Program

NOAA's National Sea Grant College Program is a federal-university partnership that integrates research, education and outreach (extension and communications). Sea Grant forms a network of 33 programs in all U.S. coastal and Great Lakes states, Puerto Rico and Guam. The National Sea Grant College Program headquarters is located in Silver Spring. The National Sea Grant Program encourages the wise stewardship of our marine resources through research, education, outreach and technology transfer. It is a partnership and bridge between government, academia, industry, scientists, and private citizens concerning issues surrounding our precious Great Lakes and ocean waters.

# Office of Oceanic and Atmospheric Research (OAR) - Office of Ocean Exploration and Research

NOAA's Office of Ocean Exploration and Research (OER), headquartered in Silver Spring, MD, is the only U.S. federal organization that systematically explores Earth's largely unknown ocean for the purpose of discovery and the advancement of knowledge so that ocean researchers, ocean policymakers, and ocean resource managers may make informed decisions about how best to research, manage, use and protect the ocean and its resources. OER also awards competitive and peer reviewed ocean exploration grants, supports advanced technology development and trains the next generation of ocean explorers. The Office leverages resources via partnerships in and outside of NOAA, and OER is a key partner in exploring the limits of the U.S. Extended Continental Shelf. OER also supports an Exploration Command Center is Silver Spring where scientists ashore participate in expeditions at sea via real-time satellite and Internet pathways.

### Office of Oceanic and Atmospheric Research (OAR) -Headquarters

The Office of Oceanic and Atmospheric Research (OAR) or provides the research foundation for understanding the complex systems that support our planet. Working in partnership with other organizational units of NOAA, OAR provides better forecasts, earlier warnings for natural disasters and a greater understanding of the Earth. Our role is to provide unbiased science to better manage the environment, nationally and globally.

# Office of the Chief Administrative Officer (OCAO) - Headquarters

The Office of the Chief Administrative Officer (CAO) provides comprehensive, NOAA-wide technical, programmatic guidance and staff support to the Office of the Under Secretary in the areas of: facilities Management, including real estate (lease management, real property acquisitions), and construction project planning, design and engineering; logistics Management, including personal property, transportation, supply chain and building management; *Freedom of Information Act*, competitive sourcing guidance, OIG/GAO liaison; Safety and Environmental Compliance programs; Civil Rights and Equal Employment Opportunity programs; NOAA Deemed Export program; and Directives and Records Management.

## Office of the Chief Information Officer (OCIO) - Headquarters

The NOAA Office of the Chief Information Officer (OCIO) ensures that NOAA's programs make full and appropriate use of information technology. The NOAA OCIO oversees the expenditure of approximately \$1 billion each year in information technology (IT) spending alone - computer hardware, software, services, networking, and telecommunications. Its focus includes high performance computing and communications, cyber security, homeland security, radio frequency management, and service delivery. NOAA is constantly adopting improved means to manage and deliver data and information to citizens and businesses regarding weather and water forecasts, search and rescue, climate change, environmental images, coastal maps, and ecosystems management. NOAA OCIO and its Line Office OCIOs are key partners with NOAA to meet NOAA missions and strategic goals.

## Office of the Federal Coordinator for Meteorological Services and Supporting Research (OFCM) - Headquarters

The Office of the Federal Coordinator for Meteorological Services and Supporting Research (OFCM) is an interdepartmental office established in 1964 in response to Public Law 87-843. The OFCM ensures the effective use of Federal meteorological resources by leading the systematic coordination of operational weather requirements and services, and supporting research, among the Federal agencies. Fifteen Federal departments, agencies, or offices are engaged in meteorological activities and participate in the OFCM's coordinating groups. The Office of Management and Budget and the Office of Science and Technology Policy in the Executive Office of the President also participate in and support the Federal meteorological coordinating infrastructure. In addition to sponsoring this coordinating infrastructure, the OFCM prepares operations plans, conducts studies, and responds to special inquiries and investigations. Current focus areas include reducing technical and cost risk for a multifunction phased array radar, establishing a national network of weather and climate observing networks, improving aviation weather and volcanic ash services and research, improving tropical cyclone forecast and warning services, and leading the National Space Weather Program, particularly in preparing for and mitigating the effects of the next Solar Maximum.

## Office of Marine and Aviation Operations (OMAO) - Small Boat Program

The NOAA Small Boat Program (SBP) manages and coordinates over 400 small vessels (<100ft) and over 800 qualified operators located across the entire United States. The SBP provides administrative and technical support, develops and implements training courses, schedules and performs vessel inspections, provides engineering and naval architecture expertise and works directly with all NOAA line offices to ensure safe and efficient use of NOAA small vessels. NOAA's SBP is responsible for creating and implementing policy pertaining to the operation of small boats for a variety of missions including law enforcement, fisheries and atmospheric research, dive operations and hydrographic survey. The SBP works to ensure that the thousands of small boat operations taking place throughout NOAA and millions of dollars' worth of assets are managed as safely and efficiently as possible.

#### Office of Marine and Aviation Operations (OMAO) - Headquarters

The Office of Marine and Aviation Operations (OMAO) operates a wide variety of specialized aircraft and ships to complete NOAA's environmental and scientific missions. OMAO is also responsible for the administration and implementation of the NOAA Diving Program, Small Boat Program and Aviation Safety Program, to ensure safe and efficient operations in NOAA-sponsored underwater activities and aviation and small boat operations. NOAA's fleet of aircraft operate in some of the world's most remote and demanding flight regimes--over open ocean, mountains, coastal wetlands, Arctic pack ice, and in and around hurricanes and other severe weather--with an exemplary safety record. NOAA's ship fleet provides hydrographic survey, oceanographic and atmospheric research, and fisheries research vessels to support NOAA's strategic plan elements and mission. The vessels are located in various locations around the United States. NOAA's aircraft and ship fleet is operated and managed by a combination of NOAA Corps Officers, wage marine and civilian employees. The aircraft and ship's officers and crew provide mission support and assistance to embarked scientists from various NOAA laboratories as well as the academic community.

## Office of Program Planning and Integration (PPI) - Headquarters

The Office Program Planning and Integration (PPI) brings all of NOAA's talent, resources, and capabilities together to meet the needs of national and regional stakeholders in a unified manner. PPI coordinates NOAA's many lines of service with the nation's many needs for environmental information and stewardship. It ensures that agency investments and actions are guided by a strategic plan, are based on sound social and economic analysis, adhere to executive and legislative science, technology and environmental policy, and integrate the full breadth of NOAA's resources, knowledge and talent to meet its mission goals.

## **Workforce Management Office (WFMO) - Headquarters**

The Workforce Management Office (WFMO)provides NOAA-wide leadership to workforce management functions including strategic human capital planning, labor-management, about labor relations, employee relations, performance management, and incentive awards, executive resources, distance learning, leadership development, training and career development, and human resources data management and automation initiatives. The Workforce Management Office employees in the Norfolk Office provide client centric human resources operational support to the National Weather Service's Headquarters and Eastern Region, National Ocean Service, and Office of Oceanic and Atmospheric Research.

NOAA In Your State is managed by NOAA's Office of Legislative and Intergovernmental Affairs and maintained with information provided by NOAA's Line and Staff Offices. Questions about specific programs or offices should be directed to the NOAA Line or Staff Office listed.

More information for those offices may be found at NOAA.gov.

# **NOAA In Your State**





